



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/801,106	02/28/2001	Koji Egashira	33082M072	8270

7590 07/05/2005

SMITH, GAMBRELL & RUSSELL, LLP
1850 M Street, N.W., Suite 800
Washington, DC 20036

EXAMINER

PERRIN, JOSEPH L

ART UNIT	PAPER NUMBER
----------	--------------

1746

DATE MAILED: 07/05/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/801,106

Applicant(s)

EGASHIRA ET AL.

Examiner

Joseph L. Perrin, Ph.D.

Art Unit

1746

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 June 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 9-18 and 21-25 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 9-17, 21, 24 and 25 is/are allowed.
- 6) ☒ Claim(s) 18, 22 and 23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 13 April 2005 has been entered.
2. All claims are drawn to the same invention claimed in the application prior to the entry of the submission under 37 CFR 1.114 and could have been finally rejected on the grounds and art of record in the next Office action if they had been entered in the application prior to entry under 37 CFR 1.114. Accordingly, **THIS ACTION IS MADE FINAL** even though it is a first action after the filing of a request for continued examination and the submission under 37 CFR 1.114. See MPEP § 706.07(b). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).
3. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Response to Arguments

4. In response to applicant's response filed 13 April 2005, the status of the application is as follows:

Applicant's arguments filed 13 April 2005 have been fully considered but they are not persuasive. It is noted that applicant's arguments, directed to the instant amended claims, were addressed in the Advisory Action mailed 25 April 2005 and are repeated below for convenience. It is further noted that upon contacting the Examiner after the Advisory Action dated 25 April 2005, applicant's representative was put on notice in the that changing the intended use language of the type of fluid usable in the ejecting orifices is not afforded significant patentable weight and would not overcome the prior art rejection of record.

5. In response to applicant's arguments that "Thompson does not describe an ejecting orifice that ejects processing liquid", this is not persuasive because what type of fluid the positively recited ejecting orifice is capable of ejecting is intended use and given little patentable weight in the apparatus claims. A recitation of the intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. If the prior art structure is capable of performing the intended use, then it meets the claim. See *In re Casey*, 370 F.2d 576, 152 USPQ 235 (CCPA 1967) and *In*

re Otto, 312 F.2d 937, 939, 136 USPQ 458, 459 (CCPA 1963). It is noted that a liquid source is not positively recited as part of the apparatus and connected to the ejecting orifices, but rather . Therefore, the STRUCTURE of Thompson (ejecting orifices) anticipates applicant's claims.

Moreover, applicant argues that "the rotor plate 171 is entirely different from the circular plate of the present invention" and that "Thompson's apparatus employs a rotor plate 171 that has numerous apertures". This is not persuasive because given the broadest reasonable interpretation applicant's claims language reads on any circular plate, either with apertures or without apertures. Thus, the rotary plate of Thompson structurally reads on the rotary plate of applicant (i.e a "circular plate") since the rotor is circular and is plate-shaped. If, *arguendo*, applicant amends the claims to read on a solid rotor plate, it is noted that a solid rotor plate is not considered a point of novelty in the instant application particularly given that the prior art is replete with teachings of solid rotor plates, and any such amendment would be subject to additional rejections over the prior art.

Claim Rejections - 35 USC § 102

1. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

2. Claims 18 & 22-23 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 5,224,503 to Thompson *et al.* (hereinafter "Thompson '503").

Thompson '503 discloses a wafer processing apparatus including a wafer holding

members with circular plates arranged at both ends (rotor 70), a cylindrical processing container 21 having nozzles 90/100 for ejecting cleaning/drying fluids, respectively, arranged on the circumferential inner surface and a fluid ejecting orifice 65 formed on the side inner surface (see entire reference, for instance, figure 7 and relative associated text; col. 5, lines 19-20). Although Thompson does show rotor portion 81 as being a "ring", the figures of Thompson '503 do not explicitly show the ends of the rotor as circular plates. However, the position is taken that the end portions would inherently be "ring"-shaped, which would read on circular plate ends. It is further noted that it is well known in the semiconductor art for rotor end portions to be shaped like the wafers to be processed (*i.e.* circular plates), as shown in the previously cited Thompson reference (Thompson '419). Accordingly, recitation of Thompson '503 reads on applicant's claimed invention.

Allowable Subject Matter

3. Claims 9-17, 21, 24 & 25 are allowed for reasons of record.

Conclusion

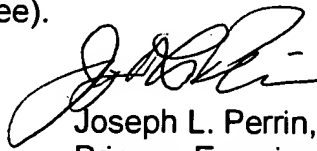
4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).
5. A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not

mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joseph L. Perrin, Ph.D. whose telephone number is (571)272-1305. The examiner can normally be reached on M-F 7:00-4:30, except alternate Fridays.

7. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Michael E. Barr can be reached on (571)272-1414. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

8. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


Joseph L. Perrin, Ph.D.
Primary Examiner
Art Unit 1746